

which recited, in pertinent part:

a balancer mounted rotatably in integral fashion with a loaded disk and having a hollow ring member containing therein a balancing member,

wherein said disk is driven for rotation at a frequency higher than the primary resonance frequency of wobbling vibrations of said disk.

Accordingly, no new matter has been added.

Office Action in the Parent Application

In the Office Action mailed June 16, 2003 in the parent application (Paper No. 9), the Examiner rejected claims 1, 3 and 5 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,731,777 (Yoshitoshi *et al.*, hereinafter “Yoshitoshi”) in view of JP 63-259242 (Abe). The Examiner stated that Yoshitoshi discloses an optical disk player which readily loads and unloads an interchangeable optical disk and which employs a main base 1, 7 in which sub-base 2a is mounted elastically via springs 10 and grommets 11 thereto. The Examiner admitted that Yoshitoshi is silent as to a balancer mounted rotatably with the optical disk. The Examiner further stated that Abe discloses a motor / rotor W wherein a balancer 2 having a hollow ring member containing a balancing member 4 is mounted in “integral fashion” to the rotor/motor/spindle shaft. The Examiner contends that it would have been obvious to one having ordinary skill in the art to provide the balancing member of Abe into the motor assembly of Yoshitoshi to automatically adjust and control any rotating unbalance and mechanical vibration.

Claims 1 and 2 of the present application comprise the subject matter of claims 3 and 5 of the parent application. Claims 1 and 2 are directed to a motor in combination with an optical disk drive apparatus for recording or reproducing an interchangeable optical disk. Claims 1 and 2 have been amended from the form claims 3 and 5 were in at cancellation to further recite “said interchangeable optical disk is driven for rotation at a frequency higher than the primary resonance frequency of wobbling vibrations of said interchangeable optical disk loaded by the user”.

Yoshitoshi discloses an optical disk player having a movable chassis 2 elastically mounted to a support frame 1. The chassis 2 is connected to the support frame 1 by linear springs 10 as well as by pins 11b extending from the chassis 2 into elastic mounts 11 attached to a side plate 7 of the support frame 1. The invention of Yoshitoshi is disclosed to be intended for

use in mobile applications. For example, see Column 1, lines 5-8:

The present invention relates to an optical disk player having an improved vibration isolation characteristic and suitable for use in a moving object, such as an automobile, an aircraft or the like.

Abe discloses an automatically adjustable balancer for a rotating shaft. The balancer includes a hollow chamber in which a plurality of movable balance adjust members are disposed. The balancer is fixed to the rotating shaft. The balancer further includes fixing means for automatically fixing the position of the balancer members within the hollow chamber to balance the rotating shaft. Abe discloses that when “a working pressure fluid P is applied to a feed and discharge passage 14, a pressing member 10 of the fixing means 5 can freely move the balance adjust members 4.” The invention of Abe is intended for use with large scale rotating shafts as would be found in machine tools.

Applicants respectfully note that Yoshitoshi and Abe would not be properly combinable under U.S.C. § 103(a) to render currently pending claims 1 and 2 obvious, as there is no teaching, suggestion or motivation supporting such a combination in either the references themselves or in the knowledge generally available to the artisan. In particular, Applicants note that the artisan would have no motivation to combine the automatic rotor balancer of Abe with the device of Yoshitoshi as the balancer of Abe requires pressurized fluid to be operational. The artisan would immediately recognize that a rotor balancer requiring a pressurized fluid would not be suitable for use as an element of a portable compact disk player, as the size, weight, expense and maintenance issues associated with a pressurized fluid system would all strongly mitigate against use of such a system in a portable consumer electronics device.

Even if Yoshitoshi and Abe were combined, the combination would not render the present invention obvious. Specifically, both Yoshitoshi and Abe fail to teach, disclose or suggest an interchangeable optical disk “driven for rotation at a frequency higher than the primary resonance frequency of wobbling vibrations of said disk”.

In view of the foregoing remarks, it is respectfully submitted that claims 1 and 2 are patentable over the combination of Yoshitoshi and Abe.

CONCLUSION

Applicants respectfully submit that the present application, including claims 1 and 2, is in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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